

A SEMICONDUCTOR STRUCTURE HAVING AN IMPROVED PRE-METAL
DIELECTRIC STACK AND METHOD FOR FORMING THE SAME

ABSTRACT OF THE DISCLOSURE

A semiconductor structure includes a substrate, a dielectric layer disposed on the substrate, a layer of undoped silicate glass disposed on the dielectric layer, a layer of borophosphorous silicate glass on the layer of undoped silicate glass, and a planar dielectric layer disposed on the layer of borophosphorous silicate glass, the layers of undoped silicate glass, borophosphorous silicate glass, and planar dielectric together forming a pre-metal dielectric stack. The planar dielectric may include plasma-enhanced tetraethyl orthosilicate.

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